Shogun Pro-500

ORDERCODE 32041

SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!

You have bought a great, innovative product from Showtec.
The Showtec Shogun Pro-500 brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated DMX show, this product provides the effect you need.

You can rely on Showtec, for more excellent lighting products.
We design and manufacture professional light equipment for the entertainment industry.
New products are being launched regularly. We work hard to keep you, our customer, satisfied.
For more information: iwant@showtec.info

You can get some of the best quality, best priced products on the market from Showtec.
So next time, turn to Showtec for more great lighting equipment.
Always get the best -- with Showtec !

Thank you!

Showtec Shogun Pro-500™ Product Guide

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WARNING

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- Shogun Pro 500
- 1X 5m DB25 cable
- 2X Keys, please record the number on the fob and retain for future reference.
- 1X 3m, 3-pin IEC powercable
- 1X 1m USB cable
- 1X 9-pin (DB9 Male) Interlock dongle (Must be connected to the projector for the laser to operate.
- 1X 128MB SmartMedia Card
- 1X Installation CD- with Installation Manual included
- User manual

CAUTION ! EYEDAMAGES !!!
NEVER LOOK DIRECTLY INTO THE LIGHTSOURCE !!!
NEVER PROJECT A SINGLE LASER POINT !!!

CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual

CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!

Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never unscrew the housing!
- Never aim the laser beam at people or animals!
- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never look directly into the light source.
- Never leave any cables lying around.
- Never bypass the thermal protection mechanism or fuse.
- Do not insert objects into air vents.
- Do not connect this device to a dimmerpack or relay type system.
- Do not switch the device on and off in short intervals, as this would reduce the laser's life.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Do not illuminate any surface within 2 meters of the Shogun laser.
- Do not operate the fixture if any covers are open, missing or damaged in any way.
- Only use device indoor, avoid contact with water or other liquids.
- Only operate the device after having familiarized with its functions.
- Only use AC power that complies with local building and electrical codes and has both overload and ground-fault (earth fault) protection.
- Avoid flames and do not put close to flammable liquids or gases.
- Always check the regulations when using a class 4 laser product.
- Always check and position the laser before anybody enters the room, when the laser is facing an area with people.
- Always allow free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Always check that all external covers and rigging hardware are securely fastened.
- Always keep fingers and objects out of the holes in the mounting bracket.
- Always protect your eyes with laser safety goggles when working on the Shogun laser.
- Make sure that the laser is always ground (earth) electrically.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.
- Make sure that the cable diameter of the extension cords and powercables are sufficient for the current consumption of the device.

- The powercable may not be modified, broken, mechanically strained, pressed together or heated.
- The cable insert or the female part in the device must never be strained. There must always be sufficient cable to the device. Otherwise, the cable may be damaged which may lead to deadly electrical shocks.
- If the external cable is damaged, it has to be replaced by a qualified technician.
- If the laser is obviously damaged, it has to be replaced. So that its functions are not impaired, due to cracks or deep scratches.
- Never hit the laser with a hammer or other tools, as this may lead to damages.
- Make sure that this product is recycled at the end of its life to protect our environment.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For adult use only. Lighteffect must be installed out of the reach of children. Never leave the unit running unattended.
- For replacement use fuses of same type and rating only.
- The user is responsible for correct positioning and operating of the laser. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this laser.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- The laser will only work between 15-35°C.
- After 3 hours working, you must shut off the laser and let the laser diode cool off for 30 minutes, otherwise the laser could be damaged and the warranty becomes void.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

CAUTION: AVOID EXPOSURE TO BEAM: Avoid direct eye contact with laser light. Never intentionally expose your eyes or others to direct laser radiation.

Compliance Statement

Your Shogun Laser has been designed to comply with FDA and IEC Standards for it classification.
The Shogun is a Class IIIB laser product.

Laser Safety and Compliance Information

The Shogun is manufactured to comply with the IEC 60825-1 and in accordance with U.S. Food and Drug Administrations (FDA) Standards Listed under FDA Document 21 CFR 1040 and subsequent laser notices. Further more, the Shogun manufactured to comply with Directive 2002/96/EC of the European Parliament and of the Council of the European Union on WEEE (Waste Electrical and Electronic Equipment), as amended by Directive 2003/108/EC, where applicable.

Laser Safety is made and regulated by different authorities in each country:
• In Europe, the European Norm-organization CENELEC
• In the United States of America, the Center for Devices and Radiological Health [CDRH]
• In Canada, the Radiation Protection Bureau (RPB)

Contact these authorities for detailed information, about the safety regulations that apply to your country. Note: safety regulations can differ from those described in this manual. Always check the required regulations before operating this laser

Product Classification and Manufacturing Label Identification

Laser Classification: Class 4
Laser medium: wavelength 635 nm / Red (Laser Diode)
wavelength 532 nm / Green (DPSS)
wavelength 473 nm / Blue (DPSS)
Output: 500mW (300mW Red/ 200mW Green/ 100mW Blue)

Cooling: TE Cooling

CAUTION: The use of corrective eye wear or optics for viewing at distances such as telescopes or binoculars within a distance of 100mm may pose an eye hazard.

This laser product is a Class IIIB laser and has an Interlocked housing.

There are no user serviceable parts inside. Tampering or removing warranty seals will void your products limited warranty.

Combo label with the Product Model Number, Serial Number, Date of Manufacturing, Laser Light Warning Label, Warranty Void Label and Interlocked Housing Label

OPERATING DETERMINATIONS

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light-output and the illuminated surface must be more than 0.8 meter.
- The maximum ambient temperature t_a must never be exceeded.

If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.
Any other operation may lead to dangers like short-circuit, burns, electric shock, skin hazards, lethal or severe injury due to laser radiation, laser explosion, crash etc.
You endanger your own safety and the safety of others!

CAUTION! This product is for professional use only!

Laser safety for a Class 4 Laser Product

This product is a Class 4 laser with more than 1000 mW visible output.
This laser system presents a hazard from direct or specular reflections. It may also produce hazardous diffuse reflections and cause significant eye or skin hazards as well as fire hazards.

CAUTION! Only Laser Safety Officers who are officially certified by a regulatory body or authorized training organization are allowed to use class 4 lasers in public. The Laser Safety Officer is responsible for all aspects when using this laser, including following all locally applicable safety laws and regulations. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this laser.

Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

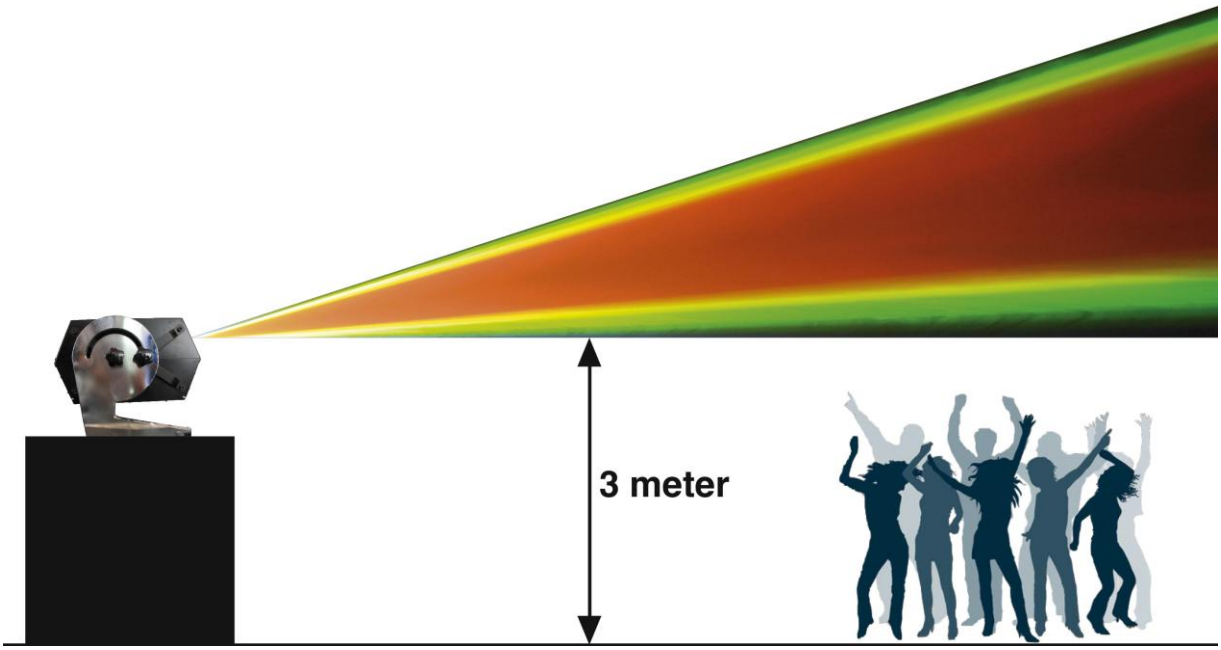
Do not attempt the installation yourself !
Always let the installation be carried out by an authorized dealer !

Procedure:

- If the laser is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Make sure that any structure used to support the machine can support at least 10 times the total weight of all installed fixtures, clamps, cables, auxiliary equipment, etc.
- Use a clamp to mount the laser, with the mounting-bracket, to the trussing system. Make sure that all rigging clamps and fasteners are undamaged and can support at least 10 times the machine's weight.
- The laser must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety-cable. Attach a safety cable that can bear at least 10 times its weight.
- Place the projector on a raised platform, if working above 1.5m.
- When rigging, derigging or servicing the laser, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.

Improper installation can cause serious damage to people and property !

Proper Usage Safety and Compliance Information
According to FDA Regulations you should operate this product as stated below.



Placing the Laser on a horizontal surface

The Shogun Pro-500 can be placed on a level horizontal surface resting on its rubber feet.

1. Make sure that the surface is level, stable and capable of supporting at least 10 times the weight of the machine.
2. Secure the machine so that it cannot slide, fall, or tilt, even if vibration from audio equipment or another source is present.
3. Eliminate any risk of loss of alignment or contact by members of the public.

Connection with the mains

Connect the device to the mains with the power-plug.
Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NUL
⏚	YELLOW/GREEN	GREEN	GREEN	EARTH

Make sure that the device is always connected properly to the earth!

Description of the device

Features

The Showtec Shogun Pro-500 is a laser effect with a high output and great effects.

- 300 mW Red laser Diode (635nm)
- 200 mW Green laser DPSS (532nm)
- 100 mW Blue laser DPSS (473nm)
- DMX-control via standard DMX-controller
- Analog Modulation (beams dimmable from 0-100%)
- Thermal Electric cooling
- ILDA 24k scanning
- On board memory to upload shows and/or patterns
- 128MB CF card included
- Including Cypher Pro USB software
- Including flightcase
- DMX-512 (14 channels)
- Power: 230V Switching Power supply
- Laser life-time: 6000-10000 hours
- Full colour spectrum (56.000 colours)
- USB connection for control by computer and uploading programs
- ILDA 25 pole sub-D connector
- Compliance to IEC 60825-1
- Remote interlock
- Key Switch
- Emission Indicator
- Class 4 laser product

Overview

Fig. 1

1) 500mW RGB Laser

Backside

Fig. 2

2) USB Connection
3) LED Indicator
4) Security Dongle
5) Dipswitches
6) Audio Sensitivity
7) X
8) Y
9) ILDA connector
10) SmartMedia Card 128MB
11) Key System
12) Power ON/OFF
13) IEC Power Connector + Fuse 2A 250V
14) Red
15) Green
16) Blue
17) DMX signal connector (OUT)
18) DMX signal connector (IN)

Remote Interlock Connector: Use a DB9 connector to connect to the Remote Interlock, which stops the beam being emitted once the connection loop has been opened.

Key System: When the key is locked, the unit stops emitting the laserbeam but keeps the power on, and the steppers keep working. Only when the key is turned, after 15 seconds, the projector starts emitting the laserbeam. 5 seconds before emitting, there is a rattling sound.

Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.
Remove the protection cover from the front of the laser. When the laser is not in use, please replace the cover to protect the laser.
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

The laser will only work between 5-35°C.
Never use the laser with a high or low temperature, otherwise the laser could be damaged and the warranty becomes void.
Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

Warning!
The power cables must be undamaged and rated for the electrical requirements of all connected devices.
Important!
Powering through a dimmer system will damage the projector and computer.
Never connect this device to a dimmer or switchpack.
Link all DMX cables before connecting electric power.
Do not supply power before the whole system is set up and connected properly.

Warm-up times and storage temperature

When the Shogun Laser is switched on, optimum beam alignment and colour balance are not obtained, until the laser operating temperature has stabilized:
When using the Laser at the two extreme ambient temperatures, i.e. at 5°C or 35°, stabilization will take approximately 10 minutes.
At room temperature of 20-25°C, stabilization takes approximately 1 to 5 minutes.

Maximum diode lifetime is obtained if the laser is only used at a stabilized operating temperature.
We urge you to wait at least 1 minute after switching the Laser on, before you activate the beam.
Diode laser devices are subject to internal thermal stresses that have a small effect on beam precision, if the device is exposed to temperature fluctuation.
The effect on precision is minimal: after 100 cycles of being warmed from 5°C up to 35°C and back again, the Shogun laser beam drift will be less than 1% of beam diameter.
However, for maximum beam precision, the Shogun must be stored at room temperature and kept at a stable ambient temperature.

Applying Power

1. Connect the prepared cable to the mains input socket and the AC mains distribution system.
2. To turn the projector on, locate the red switch at the rear of the projector and turn it into the on position. Then turn the key to the horizontal position. NOTE: when in the "ON" position, the key cannot be removed.
3. Switch the computer on. You now can continue with the installation of your new laser projector.
4. Please note you will need to connect and secure the DB-9 Interlock dongle to operate the laser at any time. It is advisable to wire the DB-9 to an emergency switch near the operator. This can be used to shut down the laser in case it fails to respond to control.

CAUTION: Use of controls, adjustments or performance of procedures other then what is described in this manual, may result in hazardous radiation exposure, which can result in severe eye damage and or physical injury.

This projector is designed to operate using ILDA standard Signal (DB25), USB or DMX-512.

Operating with USB for the first time:

1. Load the CypherLiteUSB CD-ROM into your PC.

2. Create a new folder on your desktop and rename it to "Cypher" Copy the files from the CD-ROM into that folder.

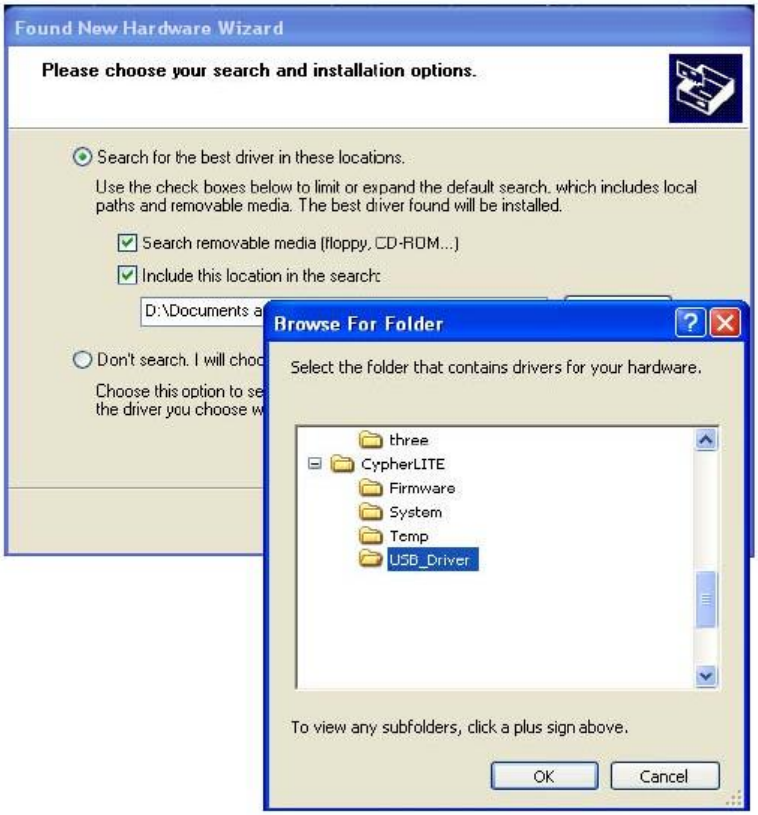
3. Connect the USB cable from your PC to the Projector.

4. A screen will appear on your PC asking for the drivers.

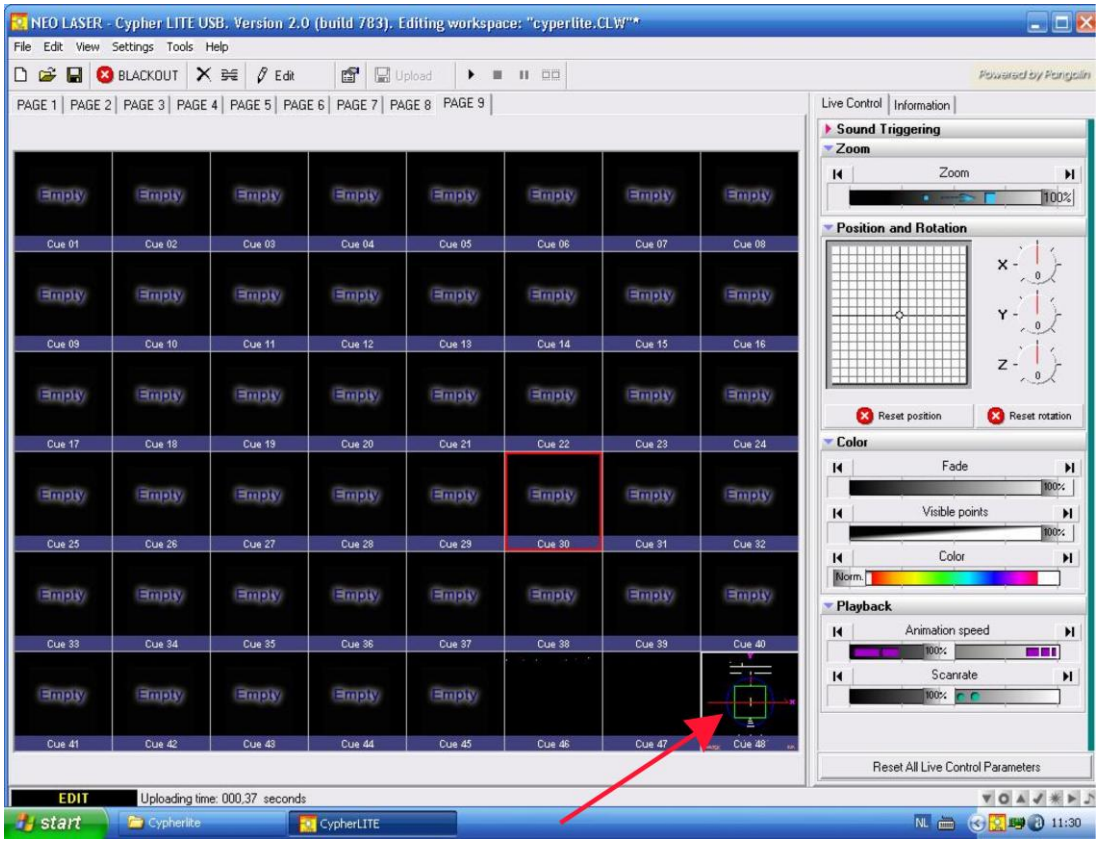
Found New Hardware Wizard
This wizard helps you install software for:
Flashback3
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

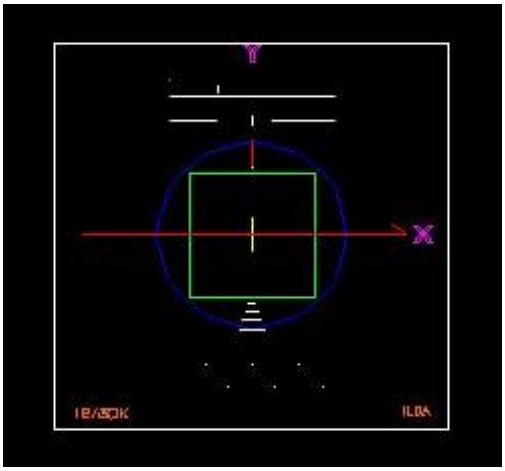
5. Select the option "Install from a specific location"

6. In the next screen click the "Browse" button and find the folder titled "USB Driver", select that folder and click "OK"


Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
Browse For Folder
Select the folder that contains drivers for your hardware.
three
CypherLITE
Firmware
System
Temp
USB_Driver
To view any subfolders, click a plus sign above.
OK
Cancel

7. The wizard will then load the necessary files and you will see the PC recognize the Flashback3 board in the projector.
8. To start using Cypher USB, click on the Cypher icon .
9. When the program opens, it will have an empty workspace.
10. In the upper left hand corner click "File" then "Open Workspace" or press "Ctr+O" and select the workspace you wish to use. Then click "Upload" Upload at the top of the CypherLiteUSB interface.
11. You can now click on any cue and it will play instantly.
12. You can change the size, speed, position, color, visible points, fade up and down, etc. all from this menu. All of these feature are also available via DMX-512.
13. You can link cues together to create a sequence of effects. Simply right click on the desired first cue, select "Link" and then click on the cues you wish to follow in order. At any time you can unlink cues by clicking on the "Link" icon at the top of the page. Select "Unlink all cues" and then click "Upload" to finalize.
14. Please note: when programming cues you have the option to select how the cue will play and what will happen when the cue ends. The cue can loop, stop, or freeze output depending on what you select. The default play mode is "Loop".
15. It is advisable to use the test pattern (See picture below, CypherLite Software Page 9, Cue 48) to check that the projection area is desirable and that the color balance is good. When projected onto a wall or screen the test pattern should look like the picture below.
At this time adjust your color balance with the three knobs on the back of the unit until the frame of the test pattern is white and the letters "X" and "Y" are pink. The letters "12K/30K" and "ILDA" should be orange.
16. In addition to the controls in CypherLiteUSB you can also change the image size via the "X" and "Y" knobs on the back of the unit.
17. Whenever you edit cues or make changes to your workspace file, you should always save them under a new file name for later use.





ILDA Test Pattern

ILDA DB-25 Operation

For ILDA operation you must have a Pangolin LD2000 card or another ILDA standard laser show control system. The connection from the PC to the Laser projector is made with a DB-25 cable. When connecting for the first time make sure that the cable is "straight through" so that pin 1 connects to pin 1 and pin 25 connects to pin 25 and so on.

1. Connect the PC to the projector with the DB-25 cable.
2. Start your laser show software. Project a test pattern and adjust the scanning parameters appropriately.
3. Please note that if you are scanning full-size at 30K the image may become distorted as the ILDA test pattern will only project correctly full size at 18K without distortion.
4. The color balance controls on the back of the unit are intended only for DMX/USB/Sound active modes of operation. When using ILDA signal the color balance feature has no effect. Make any desired color adjustments through your laser show software. I.E. For Pangolin users you will need to adjust color response through the "Palettes" feature.
5. If your projector is equipped with CTI 6210 scanners, you will get the most accurate imagery using 18k scan speed.

DMX Control

Control features

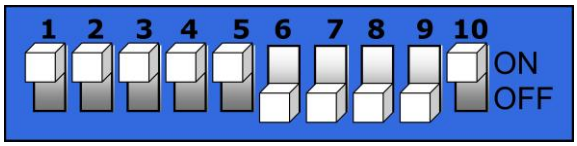
Your projector's DMX feature is capable of being controlled from a DMX-512 controller.
The projector utilizes the effects on your SmartMedia Card. To learn more about CypherLiteUSB, please refer to the CypherLiteUSB Manual on the Software Disc.
Connecting your projector to a DMX-512 Controller DMX-512 uses a three-pin cable similar to XLR or Microphone leads. We recommend that you use DMX designated cables only as the use of XLR or Microphone leads can affect the operation of your projector.

1) Determine the length required to run between the projector and the controller.
2) Using DMX Cable, connect the male end to the controller and the female to the projector.
3) Address your projector accordingly so that it corresponds with projector's profile address on your controller.
4) Apply power to both the controller and projector. You are now able to control the projector via your controller.

Setting the DMX Address

DMX Dip Switch Setting

DMX products must have their own "address" to receive DMX signals.
Addresses on the Showtec Shogun Pro-500 are set by flipping the appropriate DMX dip switches.



A standard DMX address for a Showtec Shogun Pro-500, which has 14 channels is as follow:

Shogun Pro-500	Address Value	DMX Dip Switches "ON"
Unit 1	1	#1
Unit 2	15	#1, #2, #3 and #4
Unit 3	29	#1, #3, #4 and #5
Unit 4	43	#1, #2, #4, and #6

Explanation: Since each unit has 14 channels, each address advances 14 values (See Address Value above).
Once address values are determined, set the appropriate DMX dip switches on each unit.

Example:
1. If you want to give a Shogun DMX address 133, you first have to find the number 133 in the DMX Chart.
2. Then look at the left side (Dip Switches #1-#5) horizontally from 133.
   In the Table you'll see #1=ON, #2=OFF, #3=ON, #4=OFF, #5=OFF.
3. Finally look at the upper side of the table (Dip Switches #6-#9) vertically from 133.
   In the Table you'll see #6=OFF, #7=OFF, #8=ON, #9=OFF.

DMX Address Quick Reference Chart

DMX DIP SWITCH SET 0=OFF 1=ON	#9	0	0	0	0	0	0
	#8	0	0	0	0	1	1
	#7	0	0	1	1	0	0
	#6	0	1	0	1	0	1

#1	#2	#3	#4	#5							
0	0	0	0	0		32	64	96	128	160
1	0	0	0	0	1	33	65	97	129	161
0	1	0	0	0	2	34	66	98	130	162
1	1	0	0	0	3	35	67	99	131	163
0	0	1	0	0	4	36	68	100	132	164
1	0	1	0	0	5	37	69	101	133	165
0	1	1	0	0	6	38	70	102	134	166

DMX Address Quick Reference Chart

Dip Switch Positior

DMX DIP SWITCH SET 0=OFF 1=ON																				
					#9	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
					#8	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
					#7	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
					#6	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
#1	#2	#3	#4	#5																	
0	0	0	0	0			32	64	96	128	160	192	224	256	288	320	352	384	416	448	480
1	0	0	0	0		1	33	65	97	129	161	193	225	257	289	321	353	385	417	449	481
0	1	0	0	0		2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482
1	1	0	0	0		3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483
0	0	1	0	0		4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484
1	0	1	0	0		5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485
0	1	1	0	0		6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486
1	1	1	0	0		7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487
0	0	0	1	0		8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488
1	0	0	1	0		9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489
0	1	0	1	0		10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490
1	1	0	1	0		11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491
0	0	1	1	0		12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492
1	0	1	1	0		13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493
0	1	1	1	0		14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494
1	1	1	1	0		15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495
0	0	0	0	1		16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496
1	0	0	0	1		17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497
0	1	0	0	1		18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498
1	1	0	0	1		19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499
0	0	1	0	1		20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500
1	0	1	0	1		21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501
0	1	1	0	1		22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502
1	1	1	0	1		23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503
0	0	0	1	1		24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504
1	0	0	1	1		25	57	89	121	153	185	217	249	281	313	345	377	409	441	473	505
0	1	0	1	1		26	58	90	122	154	186	218	250	282	314	346	378	410	442	474	506
1	1	0	1	1		27	59	91	123	155	187	219	251	283	315	347	379	411	443	475	507
0	0	1	1	1		28	60	92	124	156	188	220	252	284	316	348	380	412	444	476	508
1	0	1	1	1		29	61	93	125	157	189	221	253	285	317	349	381	413	445	477	509
0	1	1	1	1		30	62	94	126	158	190	222	254	286	318	350	382	414	446	478	510
1	1	1	1	1		31	63	95	127	159	191	223	255	287	319	351	383	415	447	479	511

Dip Switch Position **DMX Address**

DMX CHANNEL ASSIGNMENT

SET	CHANNEL 1	0-31		33-95				97-159				161-223				225-255	
	ACCESS	BLACKOUT		BASIC SET				STANDARD SET				EXTENDED SET				FULL SET	
BASIC SET	CHANNEL 2	0-15	17-31	33-47	49-63	65-79	81-95	97-111	113-127	129-143	145-159	161-175	177-191	193-207	209-223	225-239	241-255
	PAGE	1	2	3	4	5	6	7	8	9	9 continued (All 9 Pages in Cue Chase Mode)						
	CHANNEL 3	0-31		CUE1=33..35, CUE2=37..39,...., CUE48= 221..223												225-255	
	CUE	BLACKOUT		1 2 3 4 5 6 7 8 9 10...							...48					REPEAT	
	CHANNEL 4	0-15	17-31	33-63		65-127					129-255						
	SPEED	100%	PAUSE	25% >> 50%		50% >> 100%					100% >> 200%						
STANDARD SET	CHANNEL 5	0-255															
	FADE	Black >> Full brightness															
	CHANNEL 6	0-255															
	ZOOM	Zero size >> Full size															
	CHANNEL 7	0-255															
	X SIZE	Negative full size >> Zero size >> Positive full size RANGE															
	CHANNEL 8	0-255															
	Y SIZE	Negative full size >> Zero size >> Positive full size RANGE															
EXTENDED SET	CHANNEL 9	0-255															
	Z ANGLE	0 degrees >> 360 degrees															
	CHANNEL 10	0-255															
	X POSITION	Left >> Center >> Right															
	CHANNEL 11	0-255															
	Y POSITION	Down >> Center >> Up															
	CHANNEL 12	0-255															
	VISIBLE POINTS	No visible points >> All points visible															
	CHANNEL 13	0-255															
	PROGRAM SPEED	Program Running Speed															

DMX

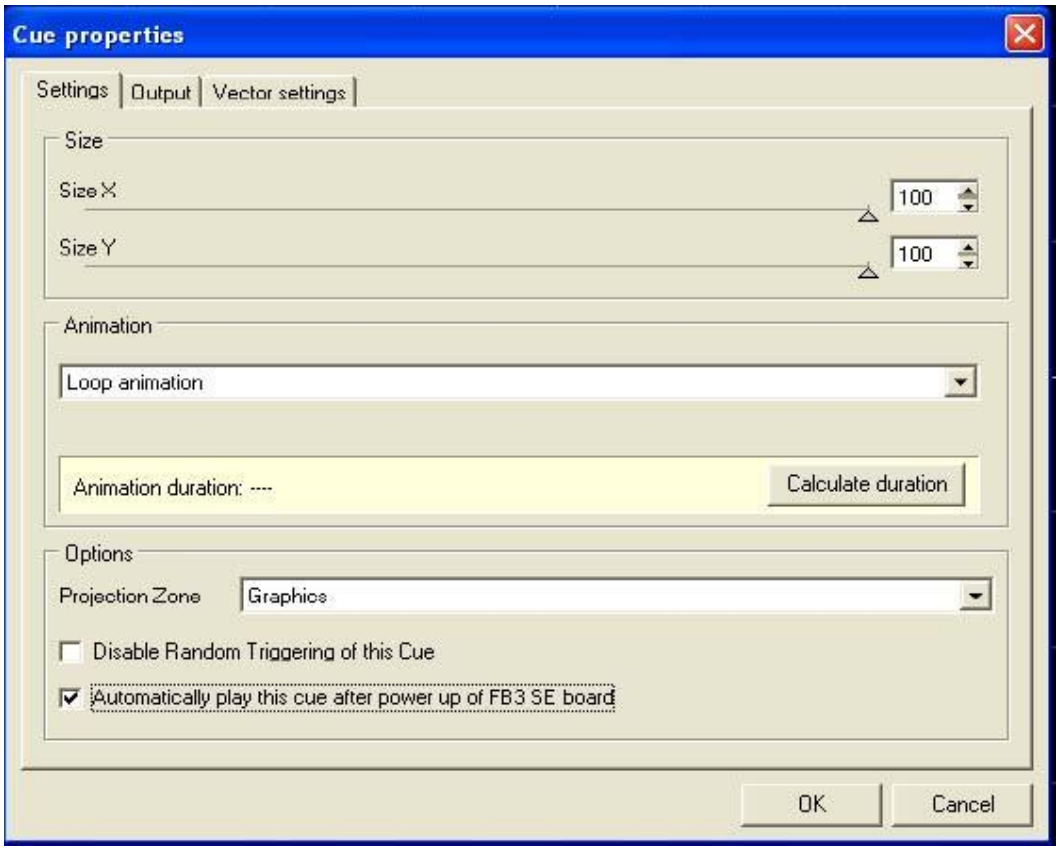
Terminate the DMX link by inserting a 5-pin XLR male termination plug into the data output of the last fixture. A termination plug is simply an XLR connector with a 120 Ohm, 0.25 W resistor soldered across pins 2 and 3.

Auto Play

Using the CypherLiteUSB software you can also set the unit up to run a cue as soon as it powers up. This may be useful in settings where the projector is used for advertisement or to project logos and does not require an operator.

1) Right-click on the cue you wish to use for Auto-Play, Select "Edit" look to the bar at the top.

2) To the far right, select "Cue properties".

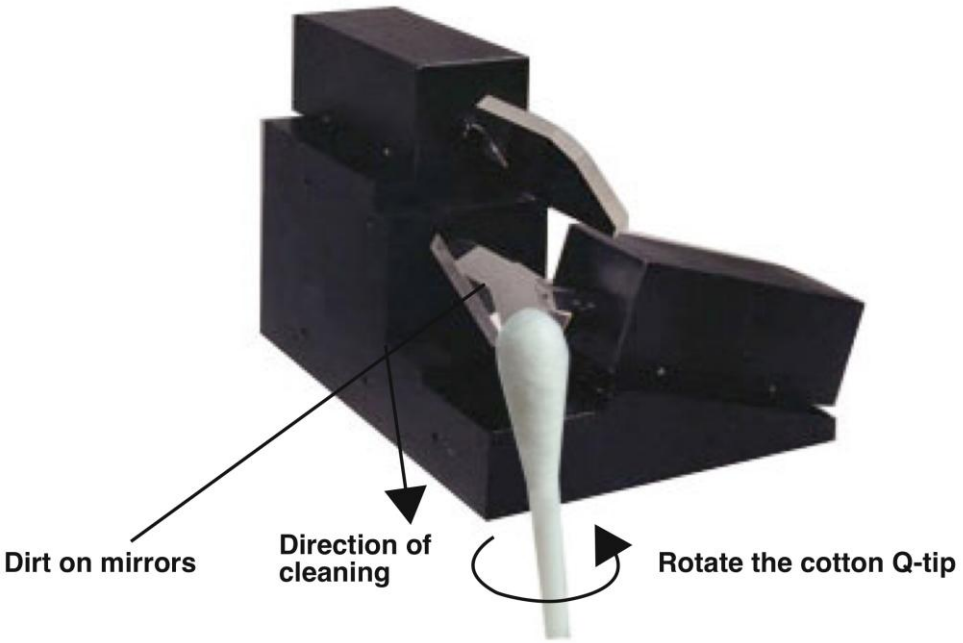


3) Select the check box at the bottom of the properties page.

4) After you upload this change to the SmartMedia card and cycle the power to the projector, you will see this cue play automatically after power up.

5) If you wish to play multiple cues automatically simply link the cues in the desired order.

Cleaning the Laser Optics



Always use a new Q-tip or cotton swab for each pass.

Use only Reagent-grade acetone or 90% isopropyl alcohol.

Do not use too much force, otherwise the mirror may break.

Always turn the power off before cleaning.
Let mirror dry before using the laser again.

Maintenance

The Showtec Shogun Pro-500 requires almost no maintenance. However, you should keep the unit clean. Otherwise, the fixture's light-output will be significantly reduced. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Carefully wipe both mirrors clean with glass cleaner and a soft cloth. Do not use alcohol or solvents.
The mirrors will require regular cleaning, as smoke-fluid tends to build up residues, reducing the light-output quickly.
Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

The following points have to be considered during the inspection:
1. All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
2. There may not be any deformations on housings, fixations and installation spots.
3. The electric power supply cables must not show any damages or material fatigue.

Replacing the Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below to do so.
1. Unplug the unit from electric power source.
2. Insert a screwdriver into the slot in the fuse cover. Turn the screwdriver to the left, at the same time gently push a bit (Turn and Push). The fuse will come out.
3. Remove the used fuse. If brown or unclear, it is burned out.
4. Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover. Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

No Light

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.
If the light effect does not operate properly, refer servicing to a technician.
Response: Suspect three potential problem areas: the power supply, the laser, the fuse.

1. Power supply. Check that the unit is plugged into an appropriate power supply.
2. The laser. Return the device to your Showtec dealer.
3. The fuse. See page 18 for replacing the fuse.
4. The cover. The cover has a safety switch, so when it is not closed properly, the laser will not work.
5. The key. The key should be positioned horizontally.
6. The security dongle. The security dongle should be attached to the backside, when operating the laser.

No Response to DMX

Response: Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.

1. Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
2. Determine whether the controller or laser effect is at fault. Does the controller operate properly with other DMX products ? If not, take the controller in for repair. If so, take the DMX cable and the light effect to a qualified technician.

Problem	Solution
Laser does not light.	Power On? Key on? DB-9 Interlock on? Volume Knob (sound active mode only) ? Smart Media Card present with the gold pins facing down?
Image appears either too wide or too thin.	Adjust the "X" or "Y" knobs on the back.
Weak colors, I.E. No green, or faint red	Adjust the Color Balance knobs on the back.
Unit Does not power up after 45 second delay (FDA required feature in the USA).	Check fuse in AC power input, key switch?Is main power switch in the on position?
CypherLiteUSB does not connect to the laser when plugged into USB port.	Cycle the power to the laser, Re-load the USB driver software, try other USB port.
Image appears "jumpy" or moves erratically when running under ILDA (DB-25) input.	Check to ensure that the DB-25 cable is secured completely, Also ensure scan speed does not exceed 30K.
Does not respond to DMX.	Check DMX address, check signal cable, ensure DMX signal is correct polarity.

Product Specification

Model: Showtec Shogun Pro-500
Voltage: 240V-50Hz (CE)
Fuse: 2A / 250V
Dimensions: 615x415x340mm (LxWxH)
Weight: 20,2 kg

Operation and Programming

Signal input 3-pin XLR male
Signal output 3-pin XLR female
DMX-control via standard DMX-controller

Laser

300 mW Red laser Diode (635nm)
200 mW Green laser DPSS (532nm)
100 mW Blue laser DPSS (473nm)

Minimum distance:

Minimum distance from flammable surfaces: 0.5m
Minimum distance to lighted object: 2m

Design and product specifications are subject to change without prior notice.

CE

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